



Other Miscellaneous Notable Changes

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Third-Party Improvements

- **Updates to third-party packages:**
 - GASNet: 1.24.0
 - hwloc: 1.10.1
 - llvm: 3.6.0
 - dygraphs: 1.1.0
- **Auto-install of Python packages required by chpdoc**
 - removed creoleparser and Sphinx (used by previous chpdoc version)
- **Re-architected Makefiles and scripting for third-party**





Environment/Configuration Changes

- **Makefiles now support parallel builds**
- **setchplenv now prepends to paths rather than appending**
- **made quickstart scripts explicitly turn some things off**
 - otherwise, can accidentally pick things up on certain platforms/builds
- **improved auto-detection of CHPL_ATOMICS for intrinsics**
- **split cygwin/netbsd into 32- and 64-bit versions**
- **CHPL_TARGET_PLATFORM now auto-detects on Crays**
- **CHPL_TASKS defaults to 'fifo' for PrgEnv-cray compiler**
 - Qthreads requires inline assembly
- **PrgEnv-cray builds are now unoptimized by default**
 - faster compile times, more consistent with other compilers





Portability Improvements

- Improved portability to NetBSD, additional Linux flavors
- Fixed portability issues with hwloc and --lnuma
- New micro-sleep in Cygwin yields improves throughput
- Fixed --llvm flag for darwin/Mac OS X
- Fixed a GMP build issue for 32-bit platforms





Additional Compiler Flag Changes

- added `--[no-]use-noinit` to ignore 'noinit' in sources
- added `CHPL_FAST` as a means of setting `--fast` by default
- added `--[no-]ignore-classes` to disable local class opts.
- added `--[no-]cast-checks` to control `safeCast` checks
- added `--[no-]munge-user-idents` to control munging
- moved all `chpldoc`-related options to `chpldoc` binary



Notable Bug Fixes

- Fixed a bug in dynamic dispatch of iterators
- Fixed a bug with parallel iteration over ‘align’ed ranges
- Fixed a bug where records did not call user constructors
- Fixed a bug in arrays of associative domains
- Fixed a bug with formatted writes of integers using ‘###.’
- Fixed an infinite loop with binary reads of strings on EOF
- Fixed a bug preventing sparse indices being uints
- Fixed a bug casting param integers to c_strings
- Fixed a bug with secondary parentheses-less methods

(see “Bug Fixes” in `$CHPL_HOME/CHANGES` for more)





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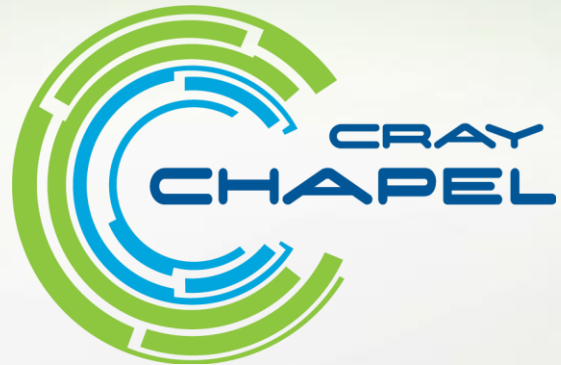
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